

REMARKS/ARGUMENTS

Claims 1-5, 7-18, and 20-27 are currently pending in the present application. The Examiner has rejected claims 1-5, and 7-10 under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. The Examiner has rejected claims 1-5, 7-10 and 20-25 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The Examiner has rejected claims 10, 11, 13, 14, 17, 18 and 26 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,154,776 to Martin in view of U.S. Patent No. 6,952,735 to Aune and U.S. Patent No. 6,546,415 to Park. Claims 15 and 16 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Martin, Aune, and Park in further view of alleged Applicant Admitted Prior Art. Claims 1-5, 7-9, 12, 20-22, 25 and 27 have been rejected as allegedly being obvious over Martin, Aune, Park and U.S. Patent No. 6,128,713 issued to Eisler et al. Claims 23 and 24 have also been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Martin, Aune, Park, and Eisler in further view of U.S. Patent Publ. No. 2002-0194326 to Gold et al.

Applicant traverses the foregoing rejections. Applicant also thanks the Examiner for his careful review of the instant application. Applicant has amended the claims to address the rejections under 35 U.S.C. §§ 112, second paragraph, and therefore respectfully requests withdrawal of the instant rejection. Furthermore, Applicant has amended independent claims 1, 8 and 10 to include a computer readable memory, and that the partition management module is operative to access the computer-readable memory. Applicant submits that the foregoing amendments overcome the rejections raised by the Examiner.

Applicant has also amended claim 20 to incorporate the limitations of claim 23,

which has now been canceled. Applicant has also amended a number of the remaining claims in order to facilitate allowance of the claims.

**Independent Claims 1, 8, 10, 11, 20, 25 and 26 are Allowable over the
Proposed Martin-Aune-Park Combination**

To establish a *prima facie* case of obviousness, "the prior art must teach or suggest all the claim limitations." MPEP § 2143; see also MPEP § 2143.03 ("To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.").

As to the independent claims, the Examiner primarily relies on the combination of Martin, Aune and Park to reject the claims. However, the cited prior art, neither individually nor in combination, discloses the claimed subject matter.

As previously stated, the claimed subject matter is directed to methods and apparatuses involving a dynamic partition object "having at least one attribute defining a first allocation of a network resource across all data flows corresponding to the at least one dynamic partition, and a second attribute defining allocations of the network resource within the first allocation." See, e.g., claims 1, 10, 11, 20 and 25, above. The claimed subject matter is also directed to dynamically creating user partition objects in response to new users. Claims 8 and 26 include a traffic classification component, in that data flows are matched to a traffic classification, which in turn maps to a dynamic partition object. New user partition objects are created as child partitions of the dynamic partition in response to new users. Similarly, claim 11 has been amended to include "selecting a partition object from the plurality of partition objects based on one

or more attributes of the data flow" and where the user partition object is created if the selected partition object is a dynamic partition object. Claims 1 and 25 have been amended to include similar limitations.

The proposed Martin-Aune-Park combinations fails to establish a prima facie case of obviousness as the proposed combination does not teach or suggest all claim limitations. Again, the Examiner admits that Martin does not "teach user partition allocations of the network resource within the first allocation across all data flows corresponding to the at least one dynamic partition and disposing of the user partition when no longer needed." Office Action ¶ 12. The Examiner then merely states that Martin discloses "resource limitation." *Id.* The Examiner then appears to rely on Aune as teaching the subject matter that the Examiner admits Martin lacks. *Id.*

The Examiner, however, fails to explain how the teachings of Aune would motivate one skilled in the art to create a dynamic partitioning scheme that includes a dynamic partition object defining a first allocation of a network resource (such as network bandwidth) and a second allocation within the first allocation. As previously described, Aune merely discloses a method of managing and distributing blocks of IP addresses of a pool of addresses in a GPRS network. That is, a global processor operates in connection with an array of other external processors. The global processor hands out "packs of IP addresses" to the external processors, which can then provide the IP addresses to requesting clients. For example, as Aune teaches, when a processor receives a request for an IP address from a mobile station, it signals the global processor, which returns a block of IP addresses. Aune, Col. 2, lines 57-61. The processor provides one to the mobile station, and keeps the rest for future requests. See Aune, Col. 2, lines 62-66. Aune also teaches that blocks of IP addresses are provided to,

and released by, the remote processors in blocks—meaning that the IP addresses are released to or assigned from the pool in blocks only. See Col. 3, lines 3-30. Aune also teaches that the size of the IP address blocks can be "dynamically adjusted" to balance minimizing network traffic between the processors, and creating address blocks that are too large. See Aune, Col. 3, lines 20-23.

In light of the teachings of Aune and the requirements of the MPEP, the Examiner should at least explain how Aune teaches or motivates one skilled in the art to create all aspects of the claimed combination (not including those allegedly taught by Park). The Office Action fails to shed any light on how the teachings of Aune relate to significant aspects of the claimed subject. For example, the Examiner attempts to support the combination by alleging that one skilled in the art would have been motivated to modify Martin with Aune, "because the teaching of Aune would further enhance the resource management mechanism of Martin by releasing unused resources due to resource limitation as being considered by Martin." Office Action ¶ 13. However, this motivation still fails to explain how Aune would motivate one skilled in the art to modify Martin to create a dynamic partitioning scheme that includes a dynamic partition object defining a first allocation of a network resource (such as network bandwidth) and a second allocation within the first allocation. In other words, the Examiner fails to disclose how the disclosure of allocating IP addresses in blocks to processors (as taught by Aune) would motivate one skilled in the art to create the dynamic and hierarchical partitioning scheme defined in the pending claims.

Furthermore, the Examiner's allegation that Martin teaches selection of a dynamic partition based on traffic classification associated with a data flow, and creation of a user partition object in response to a new user, is unsupported. As

discussed above, as claim 26 for example indicates, attributes of a data flow may map to a dynamic partition. If this is the case, user partitions are created as child partitions of the dynamic partition for a new user. Martin discloses assignment of a QoS definition (which could be a resource limitation) based on identification of a new user (entity). All flows of that user map to the assigned QoS definition. See Martin, Col. 11, lines 50-56. Martin does not disclose, however, the limitations of identifying a dynamic partition object based on traffic classification AND creating a user partition object defined by the dynamic partition object based on identification of a new user.

Furthermore, as to claim 8 and 26, the reasoning underlying the Examiner's rejection is internally inconsistent and not well founded. Specifically, in rejecting claim 10, the Examiner alleges that QoS definitions in Martin are "user partition objects." See Office Action at 3. However, in rejecting claim 26, the Examiner now alleges that the QoS definitions of Martin are dynamic partition objects. See Office Action at 6. The Examiner can not have it both ways, and further does not explain how the QoS definitions of Martin could be modified by the teachings of Aune to achieve the claimed subject matter. In addition, the Examiner's allegations at ¶ 46 of the Office Action is specious. Nevertheless, to facilitate allowance of the claims, Applicant has amended the claims to state that the user partition objects are created as child partition objects of the dynamic partition objects to address the Examiner's obtuse contention involving some hypothetical situation where "the user partition object is the dynamic partition object."

Lastly, the Examiner's continued rejection of claim 23 (to which claim 20 as amended now corresponds) is unsupported. Furthermore, the Examiner's allegation that Applicant did not adequately address the Examiner's rejection is not well taken. See Office Action ¶ 49. As Applicant clearly explained in the previous response:

[T]he cited prior art fails to disclose or suggest the configuration of user partition caps and the use of overflow partitions when the user partition cap is exceeded. Claim 24 has been previously amended to state that new users are automatically assigned the overflow partition. Gold teaches a system where manual intervention is required to temporarily allow access when the new user capacity limit is exceeded. Gold at paragraph 73. Moreover, Gold does not teach or suggest assigning new users, after the user partition cap is exceeded, to an overflow partition wherein the overflow partition defines an aggregate allocation of the network resource for data flows associated with users assigned to the overflow partition. In other words, unlike Gold, where it appears that all users are assigned the same type of access after the capacity limit is exceeded, new users are assigned respective user partitions, until the user partition cap is exceeded. At that point, all new users are assigned and, therefore share, the resources allocated to the overflow partition.

To clarify this argument, Gold does not teach automatically assigning an overflow partition. Rather, as discussed above, manual intervention is required. Furthermore, Gold does not teach a system wherein the overflow partition defines an aggregate allocation of the network resource for data flows associated with users assigned to the overflow partition. Rather, in Gold, each user has separate access. Accordingly, the cited references fail to disclose all claim limitations. Furthermore, the Examiner fails to show how the subject matter of the cited references would motivate one skilled in the art to create modify the cited references to create the claimed combination.

Lastly, the Examiner has failed to allege a sufficient motivation to combine the cited references as disclosed and claimed. Rather than repeating Applicant's contentions, Applicant relies on the arguments in the previous response of November 13, 2006.

In light of the foregoing, Applicant believes that all currently pending claims are presently in condition for allowance. Applicant respectfully requests a timely Notice of Allowance be issued in this case. If the Examiner believes that any further action by Applicant is necessary to place this application in condition for allowance, Applicants request a telephone conference with the undersigned at the telephone number set forth below.

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Respectfully Submitted,
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